

## CONSEQUENCES OF CRM CAPABILITIES DIMENSIONS ON CUSTOMER SATISFACTION AND MARKET EFFECTIVENESS

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### Abstract

*In today's business environment the main challenge for companies is gaining and maintaining a competitive advantage. A potential source of competitive advantage is customer relationship management (CRM) capabilities. The main contribution of this paper is that we proposed and tested a research model that includes one antecedent and two consequences of CRM capabilities dimensions - customer interaction management (CIM) capability, customer relationship upgrading (CRU) capability and customer win-back (CWB) capability. In this study, we use data from a sample of 102 firms acting in B2B and B2C settings in Romania to investigate how customer relationship orientation (CRO) influences the three dimensions of CRM capabilities, and furthermore, how these dimensions determine customer satisfaction and market effectiveness - two performance outcomes. Our results reveal that CRO has a direct effect on these CRM capabilities. Critically, we found that only CIM capability and CWB capability drives customer satisfaction, while market effectiveness is driven by CRU capability. This paper also discusses the implication of this study, presents managerial implications and the limitations of this research, and provides avenues for further research.*

**Key words:** *customer relationship orientation, CRM capabilities, customer satisfaction, market effectiveness, SEM*

**JEL Classification:** *M31, C12*

### I. INTRODUCTION

In today's dynamic and competitive market environment, companies invest significant resources in building, maintaining and leveraging marketing capabilities which in turn leads to business performance (Payne and Frow, 2005; Reinartz, Krafft et al, 2004; Vorhies and Morgan, 2005). In this context, CRM is an evolving concept that has attracted interest of both researchers and practitioners. CRM is considered to be a valuable capability associated with gaining and maintaining a competitive advantage. In recent years, researchers have focused on identifying antecedents and consequences of CRM (Foltean, Trif et al, 2018; Wang and Feng, 2012; Morgan, Vorhies et al, 2009). Accordingly, in our study we proposed and tested a research model of the antecedents and consequences of CRM capabilities. More specifically, we examine the effect of CRO on CRM capabilities dimensions, as well as their effect on two outcomes of business performance, customer satisfaction and market effectiveness.

The remainder of this paper proceeds as follows. First, the theoretical background for our focal constructs, CRO, CRM capabilities, customer satisfaction and market effectiveness, is presented. Second, the hypotheses pertaining to the antecedent and performance consequences of the CRM capabilities are developed based on relevant marketing literature. Third, a description of the research methodology and the results of data analysis are presented. Finally, the findings of our study are discussed, followed by managerial implications, limitations and suggestions for further research.

### II. THEORETICAL BACKGROUND

#### Customer relationship orientation

CRO is based on the concept of market orientation which is an important part of the organizational culture that puts the customer at the heart of the company's strategic actions (Jaworski and Kohli, 1993; Narver and Slater, 1990). Market orientation of a company refers to engaging in collecting market information that helps deliver responses to current and potential customers' needs, knowledge of competitors' strategies and actions, distribution channels, and the business environment in general (Morgan, Vorhies et al, 2009).

According to Jayachandran, Sharma et al (2005), CRO is a belief system of the organization that considers the relationship with the customer an important asset of the company and implies the implementation

of the needed processes to maintain and develop this relationship. Also, CRO represents the ability of the companies to develop activities and processes that lead to customer understanding (Zablah, Bellenger et al, 2004), and it is reflected in the mission, values and norms of an organization, affecting all interactions with customers (Day, 2000). Thus, a company which is oriented to the relationship with its customers will be able to better understand its customer's needs and requirements and to satisfy them (Morgan, Vorhies et al, 2009). Furthermore, a quality relationship with the customers „is a source of sustainable competitive advantage due to its intangible aspects which cannot be easily duplicated by competitors” (Trif, 2012, p. 253).

### **CRM capabilities**

CRM refers to „the management of the dual creation of value, the intelligent use of data and technology, the acquisition of customer knowledge and the diffusion of this knowledge to the appropriate stakeholders, the development of appropriate (long-term) relationships with specific customers and/or customer groups, and the integration of processes across the many areas of the firm and across the network of firms that collaborate to generate customer value” (Boulding, Staelin et al, 2005, p. 157). According to Day and Vand den Bulte (2002), CRM is a cross-functional process that contributes to establishing a continuous dialogue with customers in all contact-points, delivering customized treatment to the most valuable customers, and enhancing marketing initiatives.

Researchers approached CRM from different perspectives trying to find and explain the antecedents and consequences of these important processes that influence the relationship with customer (Payne and Frow, 2005; Boulding, Staelin et.al, 2005). Based on literature review, we can conclude that CRM can be approached as a process, capability, technology or philosophy. In our research, we adopted the capability perspective. Thus, CRM capabilities represents the company's ability to anticipate customer needs and adopt strategies according to their requirements (Zablah, Bellenger et al, 2004), to identify attractive customers, initiate and maintain relationships with them and turn them into profitable ones (Boulding, Staelin et al, 2005; Srivastava, Shervani et al, 1999). Vorhies, Orr et el (2011) define CRM capabilities as the company's ability to effectively deploy relational resources and maintain beneficial relationships with target customers.

There are many studies concerning the operationalization of CRM capabilities. Day (2000) consider that CRM capabilities has three dimensions, orientation, information and configuration. Reinartz, Krafft et al, (2004) emphasize that CRM represents attraction, regaining, retention, development and termination activities of the relationship with customers. Arndt and Schögel (2009) define CRM capabilities through the following dimensions, customer knowledge management, organizational alignment and interaction management. Finally, Wang and Feng (2012) have conceptualized CRM capabilities as business knowledge and skills within the work setting deployed in order to maintain, develop and regain attractive customers. From their point of view, CRM capabilities includ CIM capability, CRU capability and CWB capability. CIM capability is the ability of the company to identify, obtain and maintain profitable customers, CRU capability refers to the company's ability to develop and deploy up-selling and cross-selling activities and finally, CWB capability consists in the ability of the company to restore the relationship with a customer that is lost or inactive, but profitable.

### **Business performance**

Business performance is based on the use of existing resources, the acquisition of new resources and the combination of available resources in a way that goes beyond companies competing in the same industry (Morgan, 2012). Thus, in the context of the new dynamics of growth-induced markets technology, CRM is one of the most important capabilities that allows companies to use customer relationship resources to build a competitive advantage (Day, 2000).

In marketing literature, performance is measured taking into consideration two types of indicators, subjective and objective (Reinartz, Krafft et al, 2004; Vorhies and Morgan, 2005). The subjective indicators refer to management's perception of company performance and includes market share, customer satisfaction, employee turnover and new product development (Sandada, 2014), while the objective factors refer to the economic data of the firms provided by the available financial systems. Another approach to measure business performance is through product-market performance and financial performance. Product-market performance „concerns the purchase behavior responses of customers and prospects in the target market to the firm's realized positional advantage”(Morgan, 2012, p.113). Therefore, in dynamic markets, companies that obtain a competitive advantage will be positively perceived by their customers compared to competition. This can positively influence customers' buying behaviour leading to increased customer satisfaction, market effectiveness and behavioural loyalty.

### III. METHODOLOGY

#### Research hypotheses development

CRM is an interactive process that implies transforming customer information into beneficial relationships with them. A company's focus on CRO determines the attitude towards CRM and towards processes that are engaged to implement this type of management and affects all the interactions with customers (Day, 2000).

There are some studies that support the relationship between CRO and CRM capabilities (Zablah, Bellenger et al, 2004; Kirca, Jayachandran et al, 2005, Ramani and Kumar, 2008). According to Ramani and Kumar (2008), the existence of deficiencies in customer orientation could lead to the failure of CRM. We consider that companies that are customer-oriented will be able to activate all the communication channels with the customer and to collect valuable information from their interaction with them. Thus, a customer-oriented firm will implement the needed activities to initiate, maintain and develop long-lasting relationship with customer, and thus, will improve the CRM capabilities.

Rapp, Trainor et al (2010) posited that CRM capability is a high order construct that includes tactical, strategic and operational dimensions. Taking into consideration the multidimensional structure of CRM capabilities, in our research we adopted Wang and Feng (2012) approach to CRM capabilities. Consequently, we formulate the following hypotheses: H1: CRO is positively associated to CIM capability; H2: CRO is positively associated to CRU capability; and H3: CRO is positively associated to CWB capability

The role of marketing capabilities in achieving business performance has been documented in the marketing literature and resource-based theory (Barney, 1991; Foltean, Trif et al, 2018; Vorhies and Morgan, 2005; Morgan, Vorhies et al, 2009), CRM capabilities being an important driver of firm performance (Vorhies et al 2010). After reviewing the literature concerning CRM capabilities (Reinartz, Krafft et al, 2004; Zablah, Bellenger et al, 2004; Payne and Frow, 2005; Wang and Feng, 2012) we found that there is a positive association between them and business performance. According to Wang and Feng (2012), CRM capabilities are a critical success factor for business performance and have to be continuously monitored in order to get continuous improvement. Jayachandran, Sharma et al (2005) asserts that firms with superior marketing capabilities, such as CRM capabilities (Day and Van den Bulte, 2002) can achieve superior financial performance. In line with Jayachandran, Sharma et al (2005), Coltman (2007) asserts that a high level of CRM capabilities can create a positional advantage and thus, may lead to improvements in business performance. Further, as any knowledge-based processes that become embedded over time, such capabilities may be difficult to be imitated by competitors (Teece, Pisano et al, 1997). In conclusion, an effective CRM should result in higher levels of customer satisfaction and retention (Jayachandran, Sharma et al, 2005), loyalty (Gustafsson, Johnson et al, 2005) and acquisition (Reinartz, Krafft et al, 2004).

In our research we focused on subjective indicators of business performance. Taking into consideration the performance approaches identified in marketing literature, we measured business performance using two outcomes, customer satisfaction and market effectiveness (Vorhies and Morgan, 2005). Consequently, we measured customer satisfaction based on subjective assessments of respondents and market effectiveness using a scale that measures the extent to which the market objectives of the firms have been accomplished. Based on the discussion above, the following hypotheses are formulated: H4: CIM capability is positively associated to customer satisfaction; H5: CRU capability is positively associated to customer satisfaction; H6: CWB capability is positively associated to customer satisfaction; H7: CIM capability is positively associated to market effectiveness; H8: CRU capability is positively associated to market effectiveness; and H9: CWB capability is positively associated to market effectiveness.

#### Data collection and measurement

The data collection method was based on a questionnaire survey. To increase the generalizability of our results, the sample included both goods and services companies acting in B2B and B2C markets in Romania. We sent the questionnaire via email to 1000 companies from a contact list provided by Kendall Enterprise. A total of 119 completed questionnaires were returned, but after eliminating 17 because of missing data, we obtained a total of 102 valid questionnaires. Therefore, a 10.2% effective response rate was obtained.

All constructs were measured using existing scales developed in prior studies. CRO was measured using the scale developed by Jayachandran, Sharma et al (2005). CRM capabilities as a tridimensional construct was measured based on the scale developed and tested by Wang and Feng (2012). Finally, customer satisfaction and market effectiveness were measured using the scale developed and validated by Vorhies and Morgan (2005).

#### IV. RESULTS

Cronbach's alpha coefficient was used to assess the internal consistency reliability of multi-item scales. All the scales we used to measure the constructs investigated in this study were reliable, the values of Cronbach's alpha coefficients being higher than 0.70 (Nunnally, 1978).

We used Pearson's correlation coefficient to test convergent and discriminant validity for each construct included in the research model. According to Bagozzi, Yi et al (1991), if the variables used to measure each construct are correlated two by two and the significance level is lower than the maximum acceptable limit of 0.05, convergent validity is achieved. Our results indicated that in case of all six constructs in the research model convergent validity is achieved. After running the test for discriminant validity, our results revealed that the items of each scale used to measure a construct correlate most strongly with that construct. Also, for each scale, Pearson's correlation coefficient had the highest value for the construct that was measured by it, being each time statistically significant. Thus, we can conclude that for each of the constructs investigated in this study discriminant validity it's achieved.

**Tabel 1. Fit indices of the research model**

Statistic	Good fit	Value
$\chi^2$ (df)	$0 \leq \chi^2 \leq 2df$	2.265 (2)
p value	$0.05 < p \leq 1.00$	0.322
$\chi^2/df$	$0 \leq \chi^2/df \leq 2$	1.133
Root Mean Square Error of Approximation (RMSEA)	$0 \leq RMSEA \leq 0.05$	0.036
Normed Fit Index (NFI)	$0.95 \leq NFI \leq 1.00$	0.991
Comparative Fit Index (CFI)	$.97 \leq CFI \leq 1.00$	0.999
Tucker-Lewis Index (TLI)	$TLI > 0.95$	0.992

Structural equation modeling (SEM) was used to test the hypotheses and the suitability of our research model (model fit) by using AMOS 23 tools. To assess the model fit we followed the recommendations of Schermelleh-Engel, Moosbrugger et al (2003, p. 52). The relevant fit indices are presented in Table 1. The results indicate that the proposed research model has a good fit.

**Tabel 2. Standardized path coefficients for the research model**

Hypothesis (Path)	Standardized path coefficients ( $\beta$ )	Significance level (p)	Hypothesis testing result
CRO $\rightarrow$ CIM capability (H1)	0.612	0.000	Supported
CRO $\rightarrow$ CRU capability (H2)	0.394	0.000	Supported
CRO $\rightarrow$ CWB capability (H3)	0.531	0.000	Supported
CIM capability $\rightarrow$ Customer satisfaction (H4)	0.246	0.008	Supported
CRU capability $\rightarrow$ Customer satisfaction (H5)	0.120	0.150	Not supported
CWB capability $\rightarrow$ Customer satisfaction (H6)	0.317	0.000	Supported
CIM capability $\rightarrow$ Market effectiveness (H7)	0.130	0.130	Not supported
CRU capability $\rightarrow$ Market effectiveness (H8)	0.437	0.000	Supported
CWB capability $\rightarrow$ Market effectiveness (H9)	0.136	0.180	Not supported

Table 2 presents the path coefficients and their significance levels for each hypothesis, while the proposed research model is depicted in Figure 1. As shown in Table 2, we found support for six of nine (H1, H2, H3, H4, H6 and H8) research hypotheses at a significance level lower than 0.05. Thus, CRO has a significant and positive influence on all three dimensions of CRM capabilities, namely on CIM capability ( $\beta=0.612$ ,  $p=0.000$ ), on CRU capability ( $\beta=0.394$ ,  $p=0.000$ ) and on CWB capability ( $\beta=0.531$ ,  $p=0.000$ ). Regarding the influence of these three dimensions on customer satisfaction and market effectiveness we obtained mixed results. On the one hand, CIM capability and CWB capability positively predicts customer satisfaction ( $\beta=0.246$ ,  $p=0.008$ ,  $\beta=0.317$ ,  $p=0.000$ ), while CRU capability positively influences market effectiveness ( $\beta=0.437$ ,  $p=0.000$ ). On the other hand, we could not find support for H5, H7 and H9. The links between CRU capability and customer satisfaction, CIM capability and market effectiveness, and CWB capability and market effectiveness were not significant ( $p=0.150$ ,  $p=0.130$  and  $p=0.180$ ). These results are discussed in the following chapter together with research implications and limitations and future research directions are highlighted.

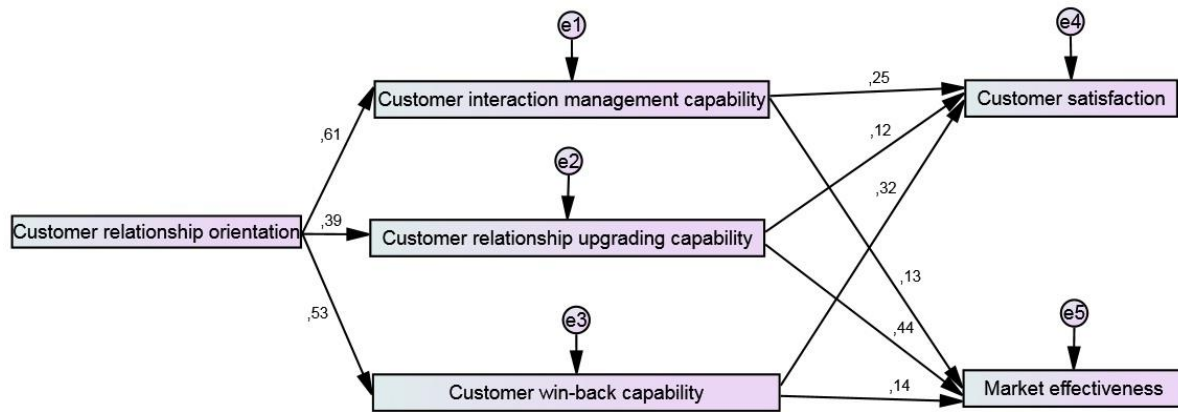


Figure 1 - Research model path coefficients (n=102)

## V. DISCUSSIONS AND MANAGERIAL IMPLICATION

This study examined the effect of CRO on CRM capabilities dimensions and the effects of these dimensions on two performance outcomes, customer satisfaction and market effectiveness in the context of an emerging economy, Romania.

Through our study we empirically proved that CRO exerts a direct, positive and statistically significant effect on each dimension of CRM capabilities. This result is consistent with the results drawn from other empirical studies which investigated the casual linkage between CRO and CRM (Zablah, Bellenger et al, 2004; Kirca, Jayachandran et al, 2005, Ramani and Kumar, 2008). One of the contribution of this paper is that we investigated the effect of CRO on CIM capability, CRU capability and CWB capability. To our knowledge, there aren't studies in the marketing literature that investigated the effect of CRO on each of CRM capabilities dimensions as there were presented by Wang and Feng (2012) in their research. Therefore, we can conclude that a high level of CRO improves each dimension of CRM capabilities.

Our results are also consistent with other previous researches that investigated the effect of CRM capabilities on business performance (Foltean, Trif et al, 2018, Vorhies and Morgan, 2005; Morgan, Vorhies et al, 2009; Wang and Feng, 2012). However, according to Morgan, Vorhies et al (2009), managers need to be aware, when focusing on business performance, that different marketing capabilities could have very different effects. Thus, our research address this gap because we investigated the effects of CIM capability, CRU capability and CWB capability on two performance outcomes. Some interesting observations drawn from our results are that CIM capability and CWB capability leads to customer satisfaction, while market effectiveness is driven only by CRU capability and that CWB capability is a better predictor of customer satisfaction than CIM capability.

### Managerial implication

The judgments managers make about how to deploy CRM capabilities is an important feature of business performance. In this study we focused on two important outcomes of business performance. Results of the present study provide evidence of the strong influence that the three dimensions of CRM capabilities exert on customer satisfaction and market effectiveness. Thus, to ensure business performance over time, managers must build and maintain a CRM culture throughout the company. In order for such culture to be effective over time, managers must incorporate it into the company' strategy and actions. Customer satisfaction can be achieved by engaging in a continuous dialogue with each customer and maintaining an interactive two-way communication, by having a systematic approach to reestablishing relationships with lost or inactive customers and by compensating for the inconvenience or loss that company brings to customers. Market effectiveness, which implies increasing sales to current customers and growth in sales revenue, can be achieved by investing in CRU capability. This means that managers must design formalized procedures for up-selling and cross-selling to valuable customers. Our findings also make managers aware of the importance of communicating to their employees' customer orientated values since CRO it's a strong driver of CRM capabilities dimensions.

In conclusion, our results highlight the importance that companies need to place on adapting all business functions to facilitate collaboration and communication across all customer contact points. In addition, managers need to set strategies and objectives that imply customer acquisition, development and retention and to design management control systems to monitor the execution of it.

## VI. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Our findings must be seen taking into consideration certain limitations that offer avenues for further research. First, the convenience sampling methodologies used in this research limits the generalization of our results. Therefore, further research is needed to validate these results by using random sampling techniques. Second, our research focused on a limited number of companies (n=102) at a single point in time. Taking into consideration the dynamic nature of the relationship between CRM capabilities and business performance a longitudinal study is needed to provide a more comprehensive view of the sustainability of CRM capabilities effects on business performance growth. Third, our findings should be comprehended with caution, as they are confined to the B2B and B2C settings in Romania. As each country is subject to cultural influences, further research must test the proposed research model in a cross-cultural setting.

Finally, according to Varadarajan, Srinivasan et al (2010) interactive technologies provide superior information capabilities to companies that are more customer-oriented. Thus, a possible avenue for further research is including in our proposed research model the effects of social media technologies use.

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